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ABSTRACT

Interracial/interethic choice patterns of 398 third and fourth grade children are measured utilizing various methods, including both projectively-based and reality-based paradigms. Attempts are made to establish the equivalence or nonequivalence of the different methodologies used to assess interracial choice patterns. Results indicate that all reality-based and quasi reality-based methods are very highly correlated with each other, with very little statistical association between any reality or quasi reality-based and purely projectively-based methodologies. The demonstrated lack of convergent validity between the two methodologies suggests that each is tapping a unique construct: projectively based methods measure a cognitive type of attitude while reality-based methods measure more of an interactive or experimental phenomenon. The finding that the photograph sociometric technique explains no more than five percent of the variance in the choices obtained from the same respondents using the reality-oriented methods suggests that interaction patterns as assessed by reality-based methods cannot be inferred by projectively-based methodologies. Results also suggest that, when planning a research design in this area, the choice of methodology may influence several factors of the study, including the theoretical construct and the results. (Author/AM)

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ATTITUDE VERSUS INTERACTION:

A MULTITRAIT-MULTIMETHOD ANALYSIS OF CHILDREN'S RACIAL PREFERENCES*

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ATTITUDE VERSUS INTERACTION:

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ABSTRACT

A review of past research indicates that a predominant methodology used to assess interracial/interethnic choice patterns in children is the photographic sociometric method, whereby the child is asked to choose among photographs of children unknown to the respondent. It is hypothesized that the findings derived from studies employing this methodology may have little to do with assessments made by more reality-oriented methodologies. This would then call into question the assumed equivalence of the predominantly-used method and "real life experience." Interracial/interethnic choice patterns of 398 third- and fourth-grade children were measured utilizing three and in some cases four different methods. It was found that the photograph sociometric technique explained no more than five percent of the variance in the choices obtained from the same respondents using the reality-oriented methods.

ATTITUDE VERSUS INTERACTION:

A MULTITRAIT-MULTIMETHOD ANALYSIS OF CHILDREN'S RACIAL PREFERENCES

Patterns of intergroup choice and rejection behavior among integrated racial and ethnic groups of children are generally thought to reflect a dynamic rather than static situation. Such behavior patterns are commonly thought to change with the prevailing socio-cultural milieu. Jones (1972) reasons that if racial attitudes develop principally out of the social milieu in which a person is socialized, then changing that milieu and the prescribed behaviors to which it gives rise should produce a change in attitudes. Thus one important research question may be whether or not the results of studies have changed over the years with the changing socio-cultural and historical-cultural milieu. If it is found that the results of research have not changed over the years, the social-psychologist might then wonder what relationship the predominant methods which have been utilized in this research area have to do with real life.

Thus, it is important to note that the methods used by past researchers in this substantive area may be divided into two basic types:

(1) Projectively-based methods: those which question respondents as to their feelings about dolls, photographs, drawings, or other inanimate attitude objects (cf. Clark and Clark, 1947; Hraba and Grant, 1970; Porter, 1971).

(2) Reality-based methods;[1] Those which utilize questions pertaining to individuals of the child's acquaintance (cf. Stevenson and Stevenson, 1960; Yarrow et al., 1958; Koslin et al., 1972).

In the area of interracial choice and rejection behavior, the majority of social-psychologists have been partial towards the projectively-based method, considering it to be "more controlled" (cf. Lindzey and Byrne, 1968: 499). Many researchers (cf. Morland, 1962; Proshansky and Newton, 1974: 182; Pushkin and Veness, 1974: 36) have either implicitly or explicitly presumed a correspondence or equivalence between the results of studies using projectively-based methodologies and those of reality-based studies as well as between the results of projectively-based studies and "everyday life experience." The major thrust of the present paper will be to examine this presumed relationship. While essentially methodological in orientation, the present study is thus of substantive significance as well. Since one's choice of methodology may determine not only how a construct is measured, but what is to be measured (cf. Walton, 1966a, 1966b; Armer and Schnaiberg, 1972), any distinction between method and substance is both patently artificial and misleading. In short, an attempt will be made to establish the equivalence or non-equivalence of the different methodologies generally utilized in assessing interracial choice patterns.

Since popular racial attitudes, conceptions, misconceptions and prejudices change with the times and in turn interact with the prevailing

self-concepts of the different racial/ethnic groups, the findings of studies of interpersonal or interracial attraction may change over the years. It will then be useful to examine the literature chronologically.

A major finding of investigations during the 1930's was that race was not a factor either in choice or rejection among very young children, but as children grow older, racial factors gradually begin to modify interpersonal choice and rejection behavior (Moreno, 1934; Criswell, 1937, 1939). Both of these researchers utilized a reality-based methodology.

During the 1940's, fifties and early sixties (pre Black Pride),[2] a number of studies were conducted testing racial factors which used different varieties of techniques. For the most part, these studies utilized projectively-based methodologies such as picture sociometric tests that used photographs of children unknown to the respondent (Radke et al., 1950; Trager and Yarrow, 1952; Horowitz, 1952; Landroth and Johnson, 1953; Stevenson and Stewart, 1958; Abel and Sahinkaya, 1962; Morland, 1962) and the use of different colored dolls (Clark and Clark, 1947). However, some studies used reality-based methodologies such as observation (Goodman, 1952) and friendship rankings (Yarrow et al., 1958). The majority of these studies done during the 1940's, fifties and early sixties found that <u>both racial groups preferred white children.</u>

Have the results of studies of interracial choice patterns changed since the advent of Black Pride? The research findings have been inconclusive. The majority of investigators (Asher and Allen, 1969; Morland, 1966;

don, 1970; Crooks, 1970; Greenwald and Oppenheim, 1968; Porter, 1971) have had results which confirmed the previous finding that black children were the least preferred by both races. However, a few studies (Gregor and McPherson, 1966; Hraba and Grant, 1970; Kircher and Furby, 1971) have found that black children no longer exclusively choose the outgroup and reject other blacks. Generally, these latter researchers have attributed the changed findings to the shifting dynamics of the socio-cultural milieu, specifically, the Black Pride movement (cf. Hraba and Grant, 1970).

Jones (1972: 93) argues that since the results of doll choice studies have been relatively consistent over the years, this method may be an inadequate means for assessing racial attitudes. Commenting on the fact that the Hraba and Grant (1970) research was one of the few studies that had not found that black children reject other blacks, he notes: ". . . we must ask ourselves why in Lincoln, Nebraska (Hraba and Grant, 1970) and not in Boston (Porter, 1971) or Newark (Asher and Allen, 1969) or in New York City (Greenwald and Oppenheim, 1968)." His main objection to these projectively-based studies is that the research design lacks "realistic human choices with implications for behavioral relationships" (Jones, 1972: 93). Jones feels that in such research the child ideally should be led to believe that there will be an opportunity to interact with the photographs of unknown individuals he is choosing or rejecting. However, I feel that letting the child believe that he has the potential to interact with the photographs of children he is choosing may not be as important of a factor as the characteristics of the attitude objects used in projectively-based research. As mentioned previously, the attitude objects most often used are photos of unknown children or dolls. Thus what we get from such projectively-based research are responses to a fantasy type of situation, or what might be conceptualized

TABLE 1

CONTINGENCY TABLE OF PAST RESEARCH, CROSS-TABULATING METHOD BY RESULT

RESULT	METHOD: REALITY-BASED METHOD	METHOD: PROJECTIVELY-BASED METHOD
RESULT #1: Blacks and Whites intermix.	Koch, 1946 Goodman, 1952; Stevenson and Stevenson, 1960 Hraba & Grant, 1970*	
RESULT #2: All children choose their own race; or, children reject opposite race.	Criswell, 1937 Criswell, 1939 Radke et al., 1950 Koslin et al., 1972	Gregor & McPherson, 1966; Hraba & Grant, 1970* Kircher & Furby, 1971 (ages three & five only)
RESULT #3: Blacks prefer whites and/or blacks reject blacks.	Yarrow et al., 1958 Teplin, 1973**	Clark & Clark, 1939 Helgorson, 1943 Horowitz, 1948* Goodman, 1952 Trager & Yarrow, 1952 Landroth & Johnson, 1953 Stevenson & Stewart, 1958 Morland, 1962 Morland, 1966 Radke et al., 1950* Greenwald & Oppenheim, 1968 Asher & Allen, 1969 Gordon, 1970** Crooks, 1970 Kircher and Furby, 1971 (age four only) Porter, 1971

*Denotes multimethod study.

**Denotes unpublished research.

NOTE: Studies which included only white subjects (e.g., Abel and Sahinkaya, 1962, Biehler, 1954, etc.) were omitted from this table.

as a cognitive sort of attitude.[3] The inconsistency between attitude and behavior has been studied extensively in the adult population. Similarly, when studying interracial choice patterns in groups of children, the social-psychologist should not presume a direct correspondence between attitude and behavior; there may be little relationship between either the results of projectively-based studies and real-life experience, or between projective research and more reality-based assessments of interracial choice and/or interaction. Parenthetically, this potential discrepancy may be somewhat analagous to another problem in attitude research, that of reconciling conflicting results derived from experimental studies of attitude change versus survey studies of the same area (Hovland, 1959).

In light of the above discussion, it will be useful to view the research historically with special emphasis on the relationship between the results of studies using projectively-based methods and those utilizing more reality-based methodologies. This may be illustrated by grouping past research in a contingency table, cross-tabulating method by result (see Table 1).

Table 1 about here

All studies reviewed could be categorized as utilizing either projectively-based or reality-based methodologies. Studies were categorized as having one of three possible results: (1) Black and white children intermix; (2) Blacks choose their own race and/or reject the opposite race; and, (3) Black children prefer whites and/or reject other black children.[4] In this three-by-two table $x^2 = 9.12$; $p < .02$.[5] When the table was collapsed into a two-by-two by collapsing

the results into two categories - - blacks do not reject other blacks or do reject other blacks - - the exact probability could be computed (Fischer Exact Test); $p < .001$.

In examining Table 1, it should first be noticed that more research was discovered which utilized projectively-based methods than with reality-based methods (nineteen versus ten). More important, however, is the way in which the studies within a method category are distributed according to their result. Only two of the ten reality-based studies yielded Result #3 (that black children were the least preferred and the most rejected group by other blacks). This is in direct contrast to the number of studies which used the projectively-based method; out of nineteen pieces of research, sixteen had results which could be categorized as Result #3. Only three research studies which used a projectively-based method found Result #2 (that blacks and whites choose their own race and reject the opposite race). However, two out of these three studies had serious methodological difficulties, which might preclude giving much weight to the result. The Hraba and Grant study (1970) took place in Lincoln, Nebrasks, where blacks constituted only 1.4% of the population. A study done on black children in this environment may not be generalizable to the black population at large. In the study done by Kircher and Furby (1971) the N was extremely small (15). Only five children of each race were included in each age group. More important, race of teacher was confounded with age of child. In short, Table 1 seems to indicate that there is some relationship between the particular methodology utilized and the resultant finding.

Another way of examining the relationship between result and method would be to review studies which have utilized more than one method within one sample. Unfortunately, there have been very few multi-method research designs; only three such pieces of research were discovered by the author (Goodman, 1952; Radke et al., 1950; Hraba and Grant, 1970). Within each of these three multi-method studies, results differed depending upon the method utilized. In all three studies children exhibited more race-related responses or prejudicial behavior to purely projective tests using photographs or dolls than to reality-based assessments, e.g., instruments asking questions about real people. Unfortunately, none of the studies utilized correlation coefficients to specify the degree of statistical relationship or non-relationship between the different methodologies employed. Little information is given to convey exactly how the lack of association between assessments was statistically determined.

The proposed research question might be seen by some as a non-issue, or a sociology-of-the-obvious; that is, it might be [illegible]ded by some that these different methodologies generate different re[illegible] by design, simply because they were <u>intended</u> to measure different theoretical constructs. Three points might be made in response to this possible criticism. (1) If all researchers were aware of the possible non-relationship between projectively-based and reality-based methods there would be no problem. Unfortunately, some researchers have neither noticed nor been concerned about the possibility of either a method-result association or a non-relationship between the two different

methodologies. Indeed, some important reviews of the literature (cf. Lindzey and Byrne, 1968: 499) have not distinguished between studies employing one or another methodology, mentioning them in the same breath (and paragraph). Some researchers (cf. Pushkin and Venness, 1974) presume both a correspondence between the two methodologies as well as a direct relationship between projectively-based methods and real-life experience. Still other literature reviews (cf. Westie, 1964; Proshansky and Newton, 1974) acknowledge the existence of different methodologies, but do not explore either the relationship between them or the possibility of a specific method-result association. This issue becomes particularly problematic when some researchers discover apparent inconsistencies in the literature which may or may not reflect true contextual differences. To date, there has been no systematic attempt to assess the extent to which such methodological factors have produced such inconsistencies.

(2) More important, social psychologists are generally thought to be interested in the prediction and understanding of behavior patterns, and thus generalizing their findings to the real world. A lack of association between results generated by the different methodologies might call into question the relationship of projective methodologies to reality, and thus ultimately the utility of those studies employing solely projectively-based methods. The lack of reliability and validity of projective tests has been noted in other contexts, most notably the clinical setting. Given the patent unreliability of projective tests (Osterweil and Fiske, 1956; Howard, 1962; Howard and Disenhaus, 1965) as well as their

questionable validity (Hooker, 1957; Little and Schneidman, 1959; Horowitz, 1962), it is difficult to assess the utility of projective tests to infer behavior in the real world. In short, a crucial question is whether studies employing one or another methodology result in a unidimensional understanding of the substantive problem. More specifically, are unimethod projectively-based studies then useful in assessing "real life" choice and rejection patterns.

(3) Finally, such potential measurement/conceptual problems do not seem to be unique to the area of intergroup relations. Similar measurement problems have been found in other substantive areas. In the area of individual modernity, Armer and Schnaiberg (1972) found that four different attitude scales designed to measure individual modernity had low discriminant validity with other scales in measuring anomia and alienation, thus casting doubt on the discriminant validity of modernity scales as well as the meaningfulness of individual modernity as a theoretical construct. Similarly, in the community power structure area, Walton (1966a, 1966b) found that the research method employed tended to determine the type of community power structure identified. The relevance of these examples to the present problem is that we do not <u>know</u> if projectively-based and reality-based methodologies have high discriminant validity. What is needed is a contemporary analysis <u>within a sample</u> which will enable us to attempt to resolve this question.

In sum, it is suggested that there is a possibility that there may exist a method and/or conceptual artifact. An attempt will be made

to reconcile some of the past apparent inconsistencies, and thereby gain some information about the equivalence or non-equivalence of the different methodologies. This will be accomplished through the utilization of the multitrait-multimethod correlation matrix, as proposed by Campbell and Fiske (1959). This matrix presents all of the intercorrelations resulting when each of several traits (i.e., situational criteria such as "who is your friend" versus "who do you work with") are measured by each of several methods. Campbell and Fiske (1959) feel that both convergent validity and discriminant validity are necessary to validate the independent empirical existence of some conceptual construct. Convergent validity includes both reliability and validity; reliability is the agreement between two efforts to measure the same trait through maximally similar methods; validity is represented in the agreement between two attempts to measure the same trait through maximally different methods. They argue that discriminant validity is also necessary in that, "a variable [should] correlate higher with an independent effort to measure the same trait than with measures designed to get at different traits which happen to employ the same method." They also note that tests may be invalidated because of too high correlations with other tests purported to measure different things. The Campbell and Fiske multitrait-multimethod correlation matrix is thus useful for testing the equivalence or non-equivalence of several reality and projectively-based sociometric methods and traits, i.e., situational criteria.

Ideally, the pattern of intercorrelations should be as follows:

(1) When measured by different methods, a sociometric trait, e.g.,

"friendship," should correlate higher with itself than it correlates with another trait, e.g., "workship." This hypothesis follows directly from the assumption that each trait has unique variance or unique antecedents not shared with another trait. (2) A trait, e.g., "friendship," should correlate higher with an independent effort to measure the same trait than with other measures designed to measure different traits, but which utilize the same method. Thus the research will also study the use of different situational criteria, i.e., does it make a difference whether a researcher utilizes the criterion of "someone you want to have as a friend," versus "someone you want to work with?" Although multi-method research designs are few and far between, there has been even less purely methodological research done specifically on the equivalence or non-equivalence of different situational criteria. A few studies (Harper, 1968; Bjerstedt, 1956) have found that there is some degree of positive correlation between all sociometric criteria. However, Borgatta (1954) studied the assessment of two sociometric traits, popularity and expansiveness, by two different methods (questionnaire and observation). For almost all methods, the highest correlation was with the other trait measured by the same method rather than with the same trait measured by a different method. The apparent degree of method variance within each of the methods, and the apparent shared method variance between them was high, i.e., low discriminant validity.

A Further Methodological Inquiry: What Constitutes a "Projective" Versus a "Reality"-Based Methodology?

Up to this point, we have reserved the term "projective" for those methods utilizing inanimate objects or props as the attitude object. The term "reality-based" has been used to describe those methods using questions which pertain to children with whom the child has the potential to interact. It seems that one potentially important difference between those two methods may be the degree of knowledge or acquaintance the child has with the attitude object. Two interesting questions will be explored. (1) One might conjecture that there is something inherent in dolls and photographs, i.e., visual cues, that makes race more of a salient characteristic for the child, thus generating more of a race-related response to the measuring instrument. This contingency might be tested by including a method where children are asked to choose and reject among photographs of their own classmates rather than unknown children. (2) It can be said that projectively-based methods as defined previously in this paper measure children's responses to a fantasy type of situation. While it can be seen that reality-based methods are involved more with real-life experience, it cannot be denied that there exists an element of fantasy in even so-called reality-based methodologies. If, for example, a child is asked to make choices and rejections on a questionnaire, he knows that his choices are hypothetical in nature; they will be of little consequence to him in that they will not

be used for any real-life activity. The wording on such questionnaires often communicates this fact. Paper-and-pencil questionnaires often utilize questions such as "suppose you can choose somebody," or "who would you choose," etc. Could this method be categorized as a wholly reality-based method? In sum, a dichotomous conceptualization of the reality versus projective issue may be too simplistic. A continuum such as the one pictured in Figure 1 might be more appropriate.

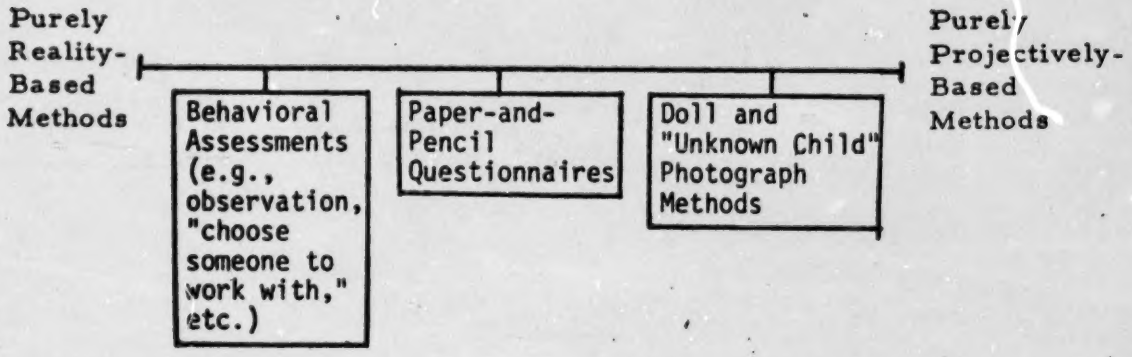
Figure 1 about here

The present study shall attempt to explore these two questions in two ways. First, an attempt will be made to manipulate the location of different methods on the reality-projective continuum by using different phraseology for each of two experimental conditions. Second, a method whereby children are asked to choose and reject among photographs of their classmates will be included in the design.

In sum, there are two experimental conditions which differ in terms of questionnaire phraseology and instruments. The first group, the "Similar Method Condition," shall be administered measures which may be interpreted as clustering at the reality-based end of the continuum, i.e., using phraseology which implies reality rather than hypothetical situations. In the second group, the "Dissimilar Method Condition," no attempt will be made to equalize the reality-projective equivalence of the methods such as that done for the first experimental condition. Instead, instruments are worded so as to represent different locations

FIGURE 1

THE POSSIBLE LOCATION OF THE VARIOUS METHODS ON A PROJECTIVE - REALITY CONTINUUM


Purely Reality-Based Methods
Behavioral Assessments (e.g., observation, "choose someone to work with," etc.)
Paper-and-Pencil Questionnaires
Doll and "Unknown Child" Photograph Methods
Purely Projectively-Based Methods

on the reality-projective continuum, i.e., purely reality-based, quasi-reality or quasi-projectively based, purely projectively-based, etc.

Hypotheses

I. In the Similar Method Condition where three out of four methods cluster at the reality end of the reality-projective continuum, correlations between methods will be higher than those between-method correlations in the Dissimilar Method Condition.

II. The lowest correlations within both experimental conditions will be between the more reality-based or quasi-reality-based methods (behavioral method and questionnaires) and the purely projectively-based method.

III. There will be high correlations between the "friend" and "work" situational criteria for both experimental conditions and within all methods.

METHOD

Subjects

All subjects were third- and fourth-grade elementary school students from the public school system of a large Midwestern city. Twelve classrooms from three different elementary schools were involved in the study; N = 398 children. All subjects were between eight and ten years of age, and were of upper-lower to lower-middle socioeconomic status, according to the categories set forth by Warner (1959). Relevant criteria for ascertaining socioeconomic status were obtained from the child's teacher.

Table 2 shows the racial/ethnic composition for each classroom and school. Each school was composed primarily of Anglo, Black and Spanish-speaking children.

Table 2 about here

Instruments

The multitrait-multimethod correlation matrix, as devised by Campbell and Fiske (1959) was utilized as a model. The three methods in the present study are as follows:

(1) A behavioral method designed to tap "real life" choice patterns for specific activities in the classroom. Choices were used to pair up the children for a specified activity.

(2) A paper-and-pencil questionnaire, in which children are asked to choose specific individuals in their classroom. Since no attempt was made to actually utilize these choices for any activity, this method might be classified as "quasi-reality" or "semi-projective."

(3) A photographic sociometric method, where individuals are requested to choose photographs of children. One group chose among photographs of their classmates. The other group was presented with a group of 24 pretested photographs of children unknown to the respondent. In order to obtain this group of 24 pictures, 80 photographs were judged on two five-point semantic differentials (good-bad; happy-sad) by 71 other third- and

TABLE 2

NUMBER AND TOTAL PERCENT OF EACH RACIAL/ETHNIC GROUP BY CLASSROOM AND SCHOOL

	Anglo	All Black*	Spanish-Speaking	Other**	Total
School A					
Room 203	15	12	6	0	33
Room 204	22	5	4	2	33
Room 209	22	7	3	1	33
TOTAL %	59.6% (59)	24.3% (24)	13.1% (13)	3.0% (3)	100% (99)
School B					
Room 102	5	6	20	0	31
Room 103	5	7	20	0	32
Room 107	0	11	20	0	31
Room 111	7	9	19	0	35
Room 113	6	5	21	0	32
TOTAL %	14.3% (23)	23.6% (38)	62.1% (100)		100% (161)
School C					
Room 202	7	19	9	1	36
Room 215	12	17	6	0	35
Room 313	11	14	6	0	31
Room 315	9	17	10	0	36
TOTAL %	28.3% (39)	48.6% (67)	22.4% (31)	.7% (1)	100% (138)
GRAND TOTAL %	30.4% (121)	32.4% (129)	36.2% (144)	1.0% (4)	100% (398)

* Both American and Haitian black.

** These individuals were excluded from all analyses.

fourth-grade children. The 24 photographs which were judged as being the most neutral on both scales were chosen for the photographic sociometric measures.

Although children were required to write down their choices and rejections for both the behavioral as well as the paper-and-pencil questionnaire measures, the behavioral measure was differentiated by presenting an activity for which the child was required to choose potential partners. For example, the "behavior-friend" measure consisted of showing the children a camera and saying, "Everybody is going to have their picture taken with a friend. You can pick kids you want to have your picture taken with." At this point, an answer sheet with everyone's name was distributed, and the children made their choices and rejections, and ultimately had their pictures taken. Thus, the design has incorporated Jones (1972: 93) criticism that most research situations have lacked behavioral consequences for respondents in that behavioral assessments where choices had direct consequences for the children were included in the present design as well as the more hypothetical paper-and-pencil questionnaire.

All three of these methods were used to measure each of the following two sociometric or situational criteria or traits: (1) Friendship, i.e., "Who are your friends?" (2) Workship, i.e., "Who do you most like to work with?" There are then six sociometric measures for each child. For each method-trait combination, each child was requested to make six choices. Due to various constrictions of the field setting, it was not possible to have a test for reliability, i.e., to measure the same trait using maximally similar methods.

Two experimental conditions were included in the research design. Example questions for each experimental condition are shown in Table 3.

Table 3 about here

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(1) A Dissimilar Method Condition, in which methods were were used which fell at different points of the reality-projective continuum (see Figure 1).

(2) A Similar Method Condition, in which an attempt was made to use all three methods to measure a reality-oriented type of attitude object. In order to have within-subject comparability in addition to between-subject comparability, those children in the Similar Method Condition were also asked to give choices to the photographs of unknown children (for both "friendship" and "workship" criteria), thus making a total of eight measures for those subjects in this experimental condition.

In sum, in the Similar Method Condition, through manipulation of the phraseology of the questions as well as using pictures of the child's classmates for one of the photo measures, three out of the four methods could be said to fall near the reality end of the reality-projective continuum pictured in Figure 1. In contrast, the Dissimilar Method Condition includes methods which fall at either end of the reality-projective continuum, as well as those (e.g., the questionnaire) which seem to fall somewhere in the middle.

Procedure

For those classrooms in the Dissimilar Method Condition, one measure per week was taken for a period of six weeks. Eight measures in eight weeks were taken for those in the Similar Method Condition because

TABLE 3

SAMPLE QUESTIONS FOR DIFFERENT EXPERIMENTAL CONDITIONS

	M E T H O D		
	BEHAVIOR: These choices were used to pair up the children for real-life activities.	QUESTIONNAIRE: The children were made aware that their answers would not be used for any real-life activity.	PHOTOGRAPHIC: No attempt is made to use these responses for a real-life activity.
Similar Method Condition	"Who do you want to work with?"	"Who do you work with?"	"Who do you work with?" (Pictures of the child's classmates were used).*
Dissimilar Method Condition	"Who do you want to work with?"	"Who would you want to work with?"	"Who would you want to work with here?" (Pictures of children unknown to the respondent were used).

*In order to have within-subject comparability as well as between-subject comparability as regards purely projective versus reality-based methodologies, those children in the Similar Method Experimental Condition were also administered measures using the method involving photographs of children unknown to the respondent.

of the two additional photographic measures that were taken. For all classrooms except one, the additional two photographic measures were taken after the other six Dissimilar Method Condition measures, in order to eliminate possible reactive effects of these two "extra" measures upon the more important basic experimental condition.

The class as a whole responded to four of the six measures. The photographic measures, however, required a one-to-one interaction between child and experimenter. Of the six measures, three were done by the experimenter, and three by the child's teacher.

Each teacher was given a script for each measure, and was coached in administering all questionnaires and measures. For those measures taken by an experimenter, two experimenters were used, a black female and a white female. Students were randomly assigned to either experimenter.

Measures were prefaced by saying, "this is a game," and "this is a new way of doing things." Secrecy was always stressed: "since it's a secret, you, of course, wouldn't want to let anyone know who you choose."

Due to the possible reactive effects of initial upon subsequent measurement (Althauser et al., 1971), there were two different orders of presentation. Whole classrooms were matched and randomly assigned to both order and experimental condition. The ideal situation would have been to randomly assign both order and experimental condition to <u>individuals</u> rather than to whole groups, i.e., classrooms. If experimental treatment were assigned in such a way, classroom would not be confounded with experimental condition and order; the research design, through individual random assignment, would then approach a true experiment. Unfortunately, due to constraints of the field setting, it was necessary for each classroom to receive the same treatments.

Except for the photographic measures, all choices were always made on answer sheets provided which listed everyone's name in the class. For each measure, the names were listed in a different random order. Subjects made choices by putting appropriate numbers (one through six) in the boxes next to the names of their choice. Race was never mentioned by the teacher or the experimenter. The racial/ethnic group membership of each child was obtained privately from the teacher. Ideally, absentees were supposed to be asked to complete the questionnaire upon their return to school. Such a procedure proved to be impossible, due to constraints of the field setting.

RESULTS

Interval scales were constructed based on the proportion of the outgroup chosen out of a possible six; scores thus ranged from zero to 100%, or from zero to six. Outgroup is operationalized as the combination of the "other" two racial/ethnic groups to which the respondent does not belong.

Experimental Controls

Order

In order to test for differences between the two orders of presentation, t-tests were performed for each method-trait combination, controlling for school and experimental condition. No significant differences were found.

Race of Experimenter

For all measures utilizing photographs, t-tests were used to determine if race of experimenter significantly affected the proportion of outgroup chosen as well as the proportion of black children chosen; the variable of school was held constant. No significant differences were found within any measure.

The Methodological Issues

Tables 4 and 5 are multitrait-multimethod correlation matrices showing the degree of association between all method-trait combinations.[6]

Tables 4 and 5 about here

Data from all schools has been pooled. Initial inspection of the unpooled correlation matrices (within school and experimental condition) yielded the judgment that the matrices were virtually identical. However, since they could not be pooled without testing for homogeneity of variance, a statistical test which is a generalization of the Bartlett test for homogeneity of k variances was performed (Morrison, 1967: 152-153). In this test the determinants of the sample covariances matrices assume the role of "generalized variances." The resulting statistic is approximately distributed as a chi-squared variate, with degrees of freedom $1/2(k-1)$ $p(p+1)$ as n_i tends to infinity. The resulting test statistic in three out of the four sets of covariance matrices did not attain significance. In the one set of matrices where statistical significance was attained, visual inspection revealed that one of the three covariance matrices contained only eleven cases, due to the manner in which missing data was deleted (see footnote 6). This matrix seemed to be somewhat different from the other two. The analysis was rerun omitting this eleven-case matrix, and statistical significance was not attained. We may not reject the null hypothesis that the covariance matrices from the different schools are not significantly different; thus the decision was made to pool the data between schools. The eleven-case matrix from School B was eliminated from the analysis.

TABLE 4

MULTITRAIT-MULTIMETHOD CORRELATION MATRIX: DISSIMILAR METHOD CONDITION
(PAIRWISE DELETION OF DATA)

		BEHAVIORAL METHOD		PAPER & PENCIL METHOD		PHOTOGRAPHIC METHOD (pictures of unknown kids)	
		Friendship	Workship	Friendship	Workship	Friendship	Workship
Behavioral Method	Friendship	XXX	.843**	.859*	.871	.057*	.122
	Workship		XXX	.926	.878*	.186	.210*
Paper & Pencil Questionnaire	Friendship			XXX	.841**	.076*	.101
	Workship				XXX	.145	.181*
Photographic Method (unknown kids)	Friendship					XXX	.496**
	Workship						XXX

KEY

* denotes validity values (monotrait-heteromethod)

** denotes monomethod-heterotrait values

Note: This key will be used for all matrices.

TABLE 5

MULTITRAIT-MULTIMETHOD CORRELATION MATRIX: SIMILAR METHOD CONDITION
(PAIRWISE DELETION OF DATA)

		BEHAVIORAL METHOD		PAPER & PENCIL METHOD Questionnaire		PHOTOGRAPHIC METHOD Using Photos of Unknown Children		PHOTOGRAPHIC METHOD Using Pictures of Child's Classmates	
		Friendship	Workship	Friendship	Workship	Friendship	Workship	Friendship	Workship
BEHAVIORAL METHOD	Friendship	XXX	.793**	.770*	.768	.208*	.023	.853*	.819
	Workship		XXX	.752	.692*	.051	.022*	.774	.775*
PAPER & PENCIL METHOD	Friendship			XXX	.684**	.198*	.091	.752*	.788
	Workship				XXX	.148	.040*	.730	.790*
PHOTO METHOD Photos of Unknown Children	Friendship					XXX	.573**	.150*	.023
	Workship						XXX	.006	-.009*
PHOTO METHOD Using Pictures of Child's Classmates	Friendship							XXX	.880**
	Workship								XXX

According to Campbell and Fiske (1959) evidence of convergent validity requires that entries in the validity diagonal be "sufficiently large." The correlations lying in the validity diagonal in all correlation matrices have asterisks. In both Tables 4 and 5 all correlations in the validity diagonal are sufficiently large, except those for the photographs-using-unknown-kids-method (hereafter called simply the fantasy-photo method) where the correlations are extremely low, falling between -.009 and .210. Thus for all methods except for the fantasy-photo method, convergent validity has been demonstrated, i.e., correlations measuring the same trait with maximally different methods are fairly high, falling between .694 and .878. The fantasy-photo method has low correlations with other methods measuring the same trait; it would seem as though this method is measuring a different construct than the other methods.

There are two requirements for discriminant validity that are relevant to the present problem. (1) "A variable should correlate higher with an independent effort to measure the same trait than with measures designed to get at different traits which happen to employ the same method" (Campbell and Fiske, 1959: 83). This involves comparing the validity values with those correlations between traits but within a method, i.e., "heterotrait-monomethod values," in Campbell and Fiske terminology. Clearly these values are no higher than between-method, within-trait correlations. In Table 4 they are, for example, .859 versus .843; .878 versus .841 and .181 versus .496. In Table 5 they are .770 versus .793; .692 versus .684; .040 versus .573; and .775 versus .880. (2) "Any given validity value for a variable should be higher than the correlations obtained between

that variable and any other variable having neither method nor trait in common" (Campbell and Fiske, 1959: 82). Again, in both matrices this is not the case.

There does not seem to be discriminant validity between "friendship" and "workship." Correlations between the two traits are moderately high within methods. In addition, in both matrices the reality-based methods have high correlations with each other whether they are measuring the same or different traits. In contrast, the projectively-based method has extremely low correlations (ranging between -.009 and .210) with the reality-based methods, and it does not matter whether one is looking within traits or between traits.

Another interesting characteristic of Tables 4 and 5 is that while the within-method-between-trait correlations are quite high for the reality-based methods, these same between-trait correlations for the projectively-based method are lower, e.g., in Table 4 the reality-based method between-trait correlations are .841 and .843 while the fantasy-photo method between-trait correlation is .496. Similarly, in Table 5, the monomethod-heterotrait correlations for the reality-based methods are .793, .684 and .880 while the projectively-based method correlation is .573. Parenthetically, it should be noted that the reality-based method which utilized photos of the respondents' classmates had the highest between-trait correlation of .880 which may reflect the possibility of less respondent error, as these measures were individually administered.

In short, convergent validity has been demonstrated for all reality- and quasi-reality-based methods. Overlap of method variance is high. Correlations between traits or criteria are high both within a method and between methods. Thus, discriminant validity between traits has not been proven, i.e., for these particular children it does not seem to matter what situational criterion is utilized. Most important, the projectively-based method seems to be measuring a theoretical construct different from that tapped by reality-based methodologies.

Since these correlation patterns held no matter what the school or experimental condition, the consistent lack of statistical relationship between the purely projectively-based methods and the reality- or quasi-reality-based methods is particularly interesting. Although the projectively-based method used a group of photographs which had a somewhat different racial/ethnic composition than some of the classrooms, the data patterns held in spite of the varying racial/ethnic makeup of the different schools and classrooms. This consistency in the data patterns seem to suggest that the differences in racial/ethnic composition between the two methods (photograph pool versus classroom pool) probably is not a problematic factor in terms of interpretation of the results.

The Experimental Manipulation: Dissimilar Method Versus Similar Method Condition

It was hypothesized that in the Similar Method Condition, where three out of four methods cluster at the reality end of the continuum, correlations between these reality methods would be higher than those between-method correlations in the Dissimilar Method Condition. From examination of Tables 4 and 5 we can see that this is not the case. Correlations between

reality-based methods in Table 5 are no higher than those in Table 4. In both matrices, correlations between all reality- or quasi-reality-based methods are high while correlations between the purely projectively-based method and others are low. Interestingly enough, the reality-based photo measure (using photographs of the child's classmates) is very highly correlated with all other reality-based methods, but has low correlations with the other photograph method (which was, however, a projectively-based method).

In order to test for differences between experimental conditions, t-tests for all method-trait combinations were performed controlling for school and experimental condition. There were no significant differences with only one exception. In School A the questionnaire-friend measure was significantly different by experimental condition; $p = .017$. Given that there were six or eight measures and many t-tests were performed on the data (16 t-tests while controlling for school and experimental condition = 48 tests of significance) the one t-test which was significant will be treated as being due to chance factors. Thus we can say that there were no experimental condition effects.

In sum, the experimental manipulation, i. e., the differential wording of the questionnaires, did not result in differences between the two experimental conditions. It is important to note, however, that in both experimental conditions the purely projectively-based method had very little relationship to any other reality-based or quasi-reality-based methodology.

DISCUSSION

To briefly recapitulate, it was found that all reality-based and quasi-reality-based methods were very highly correlated with each other (correlations between .70 and .95) while there was very little statistical association between any reality- or quasi-reality-based and purely projectively-based methodologies; that is, convergent validity was not demonstrated for projectively-based methods. The particular situational criteria utilized ("work" or "friend") did not seem to matter; all were highly correlated.

This section will deal with two main points of interest. First, the potential utility of the present study for future researchers will be dealt with, i.e., an explication of the equivalence or non-equivalence between the different method-trait combinations. Second, the inherent dangers in choosing one or another methodology will be discussed.

How should prospective researchers utilize the findings of the present study to improve future research? The choice of method, whether reality- or projectively-based seems to be of paramount importance. It is interesting to note that since two of the methods in the present study used photographs (the reality-based method used pictures of the child's classmates while the projectively-based method utilized photographs of children unknown to the respondent), one might expect that visual aids such as photographs might serve to make race a more salient characteristic for the child, thus engendering a more race-related response to any method using photographs, be it reality- or projectively-based. Such was not the case. It did not seem to matter what kind of reality- or quasi-reality method was used;

correlations between behavioral assessments, questionnaires and the classmate-photo method were all equally high. Another interesting finding of this study is that the correlations between situational criteria or traits were all fairly high, both within and between the different reality-based methods. Thus it would seem that within the reality-based methods, children use similar criteria to choose other children whether the activity involves friendship or work. It appears that children, at least at this age, may have a circle of friends with whom they desire to participate in all activities, be they "work" or "play." A potential confounding factor in this study, however, may be that work in the classroom is often presented as a "game," e.g., spelling "games," and arithmetic "games," etc. Hence "work" as defined by adults may be interpreted by children as being more akin to a "game." It seems natural for a child to choose his friends to play games with; thus he may utilize the same criteria for choosing friends with whom he wishes to play "work games," as he does to answer the question "who are your friends." Hence, the high correlation between workship and friendship in the present study should be interpreted with caution, and probably should not be used as evidence that situational threshold differences (Campbell, 1963) do not exist for these children.

In contrast, within the projectively-based method, the correlations between "work" and "friend" were somewhat lower, ranging between .49 and .59. While these correlations are respectably high, and thus rule out discriminant validity between traits, the fact that these within-method correlations were somewhat lower than those for the reality-based methods suggests some interesting possibilities. First, the lower correlation may

serve to exemplify the inherent instability or unreliability of projectively-based methods similar to that found in clinical psychology (Osterweil and Fiske, 1956). Unfortunately, since it was impossible to include a reliability measure due to constraints of the field setting, a direct test of this hypothesis is not possible. Second, there is the possibility that the particular situational criterion utilized may not be an important factor when using reality-based methods, i.e., the correlations between them are so high that one might assume that they measure the same thing. In contrast, when using projectively-based methods, the choice of whether a researcher uses a "work" or "friend" criteria may serve to engender different responses. That is, in this projectively-based method the lower correlations between situational criteria or traits might serve to suggest the possibility that these children, like Minard's miners (1952) may accept "outgroup" children in work situations, but not in others, e.g., "friendship."

That there were no effects due to the experimental manipulation seems to suggest that it does not matter <u>how</u> the questions are asked, that is, whether the verbs "do" or "would" are used, or if measurement is taken in anticipation of a behavioral activity, or if questionnaires or photographs of classmates are used. In addition, the choice of situational criteria does not seem to be a particularly important factor in this classroom setting, although there is some question as to this aspect of the study. (See above paragraphs). The most important factor seems to be whether the questions refer to individuals of the child's acquaintance versus <u>unknown</u> children. Of course, there exists the possibility that other projectively-based methodologies, e.g., doll-choice studies, may have a stronger relationship to both real-life

experience as well as with the results of more reality-based methods. Unfortunately, since it was impossible to include a doll-choice measure in the research design, and there has been little systematic within-sample research on this problem, we cannot resolve this issue. In fact, since the vast majority of past studies have employed only one method, it is impossible to infer the equivalence or non-equivalence between different projectively-based methodologies, e.g., the relationship between the doll-choice and photograph-choice methods.

The results of the present study would seem to indicate that when planning a research design the crucial question is whether the social-psychologist chooses to utilize a reality- or quasi-reality-based method versus a projective method which utilizes photos of unknown children as the attitude object. In addition, since it would seem that other projectively-based methods such as doll-choice studies are more similar to photo-choice studies than to the more reality-based methods, prospective researchers might be similarly forewarned when dealing with other projective methods. In short, the results of the present research seem to indicate that when planning a research design the choice of method is of paramount importance. All other considerations would seem to be relatively secondary.

The results of this study also seem to suggest that when planning a research design in this substantive area, one's choice of methodology may influence several factors of the study, among which are the following. The first two issues will be discussed in detail.

(1) One's choice of methodology may determine the theoretical construct being measured. Thus, when designing research, the theoretical construct of interest should determine one's methodology.

(2) Following directly from this construct validity problem, it is suggested that researchers should not attempt to generalize findings of projectively-based studies to interaction or other behaviorally-based phenomenon, i. e., real-life choice patterns.

(3) Since the correlation between the results of two of the methodologies was so low, the possibility clearly exists that the choice of method may influence to some extent the result of that research in this area.[7]

The choice of method may determine what is being measured. That different methods generate different results seems to suggest that each method may be tapping a unique theoretical construct. One might conceptualize reality-based methods to be measuring some sort of behaviorally-based interaction; this follows from the fact that there exists the opportunity for the child to actually interact with these individuals in real life. In contrast, purely projectively-based methods may tap a more cognitively-based construct, which seems to be based more on fantasy. As mentioned earlier, such projective methodologies might be said to be tapping a traditionally cognitive type of attitude.

If reality-based and projectively-based methodologies are conceptualized as measuring attitude and interaction respectively, then the low correlation between these two methods is especially interesting. The attitude-behavior area has traditionally concerned itself more with adults than with children. McGuire (1968) has noted that attitude research has long indicated that a person's verbal report of his attitude has a rather low correlation with that individual's actual behavior toward the object of his attitude (cf. LaPiere, 1934; Minard, 1952; Lohman and Reitzes, 1954). Rose (1956: 173) feels that, ". . . patterns of intergroup relations . . . are quite distinct from

attitudes of prejudice in that each has a distinct history, cause, and process of change. . . . [they] are fairly unrelated phenomena although they have reciprocal influences on each other." Merton (1949: 102-103) also notes that attitudes and overt behavior vary independently; prejudicial attitudes need not coincide with discriminatory behavior. In a review of the attitude versus behavior literature, Wicker (1969: 65) found that, "only rarely can as much as ten percent of the variance in overt behavioral measures be accounted for by attitudinal data." The results of the present research are consistent with Wicker's (1969) claim. Since the largest correlation coefficient between a projective and reality-based method was .210, only 4.4% of the variance was explained.

Can this low correlation between the two methods be construed as exemplifying an inconsistency between attitude and behavior? The question of adult attitude-behavior inconsistency has been addressed by both sociologists (Merton, 1949; Rose, 1956; Warner and DeFleur, 1969) and psychologists (Campbell, 1963; Cook and Selltiz, 1968; Fishbein, 1967).

It is particularly interesting that while the discrepancy between attitude and behavior in adults has been studied exhaustively by social-psychologists, the possibility of a similar discrepancy is rarely entertained in studies utilizing children as respondents (cf. Morland, 1962; Proshansky and Newton, 1974: 182; Pushkin and Veness, 1974: 36). At least one possible reason for this intellectual/conceptual oversight may be that it is often thought that children are more "honest" and "open" than adults. If researchers accepted this bit of popular folklore, it then follows that projectively-based methods could be used to accurately reflect interaction or real-life behavior patterns. However, classic child development theorists have postulated that children

are neither innately innocent or direct (Freud, 1938), honest (Kohlberg, 1969) or moral (Piaget, 1948). Freud, Piaget and Kohlberg feel that these traits are part of a developmental phenomenon; all three theorists see the child as moving gradually through sequential stages of personality, moral and cognitive development. While many researchers have come to recognize the cognitive complexity of adults and have thus studied attitude-behavior inconsistency in depth in older individuals, many social-psychologists have apparently overlooked or ignored the problems posed by a similarly complex cognitive structure of children. Perhaps one could say that this substantive area has suffered from a sort of culture lag (Ogburn, 1964) both by overlooking the connection between this substantive area and the classic theoretical contributions on moral development (Freud, 1938; Kohlberg, 1969; Piaget, 1948) as well as by ignoring the vast literature of adult attitude-behavior inconsistency. In short, a similar view of the attitude-behavior relationship should be entertained when studying children, since the relationship between attitude and behavior is neither simple nor direct, no matter what the age of the individuals involved.

In sum, the demonstrated lack of convergent validity between the two methodologies seems to suggest that each is tapping a unique construct. Further, I am proposing that projectively-based methods may measure a cognitive type of attitude while reality-based methods measure more of an interactive or experiential phenomenon. Thus, when designing studies in the substantive area of intergroup relations, prospective researchers should be aware that their choice of methodology should correspond with the theoretical construct they seek to measure.

The fact that at best less than five percent of the variance was explained in the present study suggests that interaction patterns as assessed by reality-based methods cannot be inferred by projectively-based methodologies. This may be seem to be an obvious point. Yet, it may often be tempting to infer behavior or interaction patterns from attitudinal (i.e., projective test) data. Examples of this error can be found in the literature. For example, Morland (1962) concluded from a projective study that ". . . at nursery-school age both [black and white children] have learned to prefer white playmates." Clearly this thesis has not been supported by his research. Rather, Morland (1962) had found that at nursery-school age both races had learned to prefer photographs of (unknown) white children. There is quite a difference between these two interpretations of the data. Rose (1956: 174) has noted that "racial prejudice as it has been studied . . . has little to do with patterns of intergroup relations in our society." The popularity of projectively-based methods as illustrated in Table 1, coupled with the results of the present study would seem to confirm Rose's thesis, albeit nearly twenty years later!

In short, if a particular researcher is interested in inferring interaction patterns, a projectively-based methodology should not be chosen. This point seems to be relevant to a recent issue in social psychology, that of interpersonal simulation or role-playing techniques versus experimental research. Some social psychologists (e.g., Greenberg, 1967; Kelman, 1967) have suggested that role-playing might be substituted for traditional experimental research. They propose that the experimenter should merely describe a situation to the subject and ask him how he would behave if he

were in that situation; this technique would be used in lieu of manipulating and measuring variables. The crucial difference between these two methods is that the subject is pretending rather than actually behaving. In other words, role-playing or interpersonal simulations provide information about what people think they would do rather than what they actually would do. The two situations are quite different. How many subjects would say they would deliver dangerous shocks to people simply because an experimenter instructed them to do so? Milgram (1963) asked people to predict the results to this experiment, and they were totally inaccurate. This simulation versus "real experiment" issue is similar to the present projective versus reality-method problem. Projective methods involve pretending just as to interpersonal simulations, while both experiments and reality-based methods involve real-life interactions. Freedman (1969: 114) is quite critical of the substitution of interpersonal simulation for experimental research. He feels that since role-playing involves people's guesses as to how they would behave if they were in a certain situation, this information cannot and must not be construed as being data on how they would behave in a real experiment: "People's guesses . . . are not the stuff of which a science of human behavior is made." Similarly, projectively-based methodologies can be said to be people's guesses as to how they would behave. (For example, in the present study, children were asked, "who would you most like to have as a friend?" as the experimenter pointed to a group of photographs).

It might also be noted that both interpersonal simulations and projectively-based methodologies are thought to be easier. The point is that just as interpersonal simulations or role-playing should not replace traditional experimentation (Freedman, 1969) projectively-based methods cannot and

must not be used in lieu of real-life interaction measurement and assessment procedures. To do so invites intellectual disaster. This is not to say that projectively-based methodologies do not have a place in sociopsychological research. Rose (1956: 176) feels that it is important to know and understand changes in attitude and/or psychological adjustment which accompany social change, e.g., desegregation. He further notes, however, that, "attitudes do not seem to be important for understanding the broad process of social change, or for engaging in social action to effect change."

Thus the fact that projectively-based methodologies are easier, "cleaner," or more controlled are all inadequate reasons for using them to the exclusion of reality- or quasi-reality-based methods. The issue is ultimately a "mini-max" question. If we as social scientists are interested in making probabilistic statements about the real world, i.e., interaction, to rely solely on projectively-based methodologies may be worse than inadequate. The generalizability of results from projective studies to real-life interaction or experience may be limited at best, and misleading at worst.

FOOTNOTES

[1] The author is aware that while the distinction between the two methodologies may be clear, the particular labels chosen may be somewhat misleading. Specifically, although the term "reality-based" refers to the fact that the respondent is questioned about real people, correspondence between this measure and reality or behavior should not necessarily be presumed.

[2] Specifically, the beginnings of the Black Pride Movement have been traced to James Meredith's march from Memphis to Jackson in the summer of 1966 (Meier and Rudwick, 1971). The effects of the Black Pride Movement, however, probably were not felt instantaneously in all geographical areas of the country (Hraba and Grant, 1970), communities or age groups.

An interesting issue is whether interaction patterns should be viewed as a correlate versus a component of Black Pride. That is, if unchanged patterns are viewed as a component of Black Pride, can it be said that Black Pride exists for these children as a group? The problem is compounded by the fact that very few studies included a measure of "Black Pride" or racial consciousness, thus we cannot know whether Black Pride was present in any given sample. For our purposes, we shall view choice patterns as a potential correlate of Black Pride rather than evidence that it exists as a theoretical construct.

[3] The definition of what the concept of "attitude" entails has been a somewhat problematic issue in social psychology. According to various behavioristic definitions of the theoretical construct (cf. Campbell, 1950)

all reality and projectively-based methods could be construed as measuring an attitude. Other researchers feel (cf. Fishbein, 1966) that a multi-component view of attitude is misleading and inappropriate. For the purposes of this paper, an attitude will be defined in more of a cognitive sense as, "the intensity of positive or negative affect for or against a psychological object. A psychological object is any symbol, person, phrase, slogan or idea toward which people can differ. . . " (Thurstone, 1946: 39).

[4] The reader should be made aware of the fact that the reviewed research is quite varied in terms of the type of group (age and racial composition) and the geographical factors involved (e.g., urban versus rural; south versus north, etc.). It is possible that any of these variables, combined with one of the methodologies employed, could result in a unique interactional effect on the choice behavior measured. Yet, such factors do not seem to explain the pattern in Table 1.

An intensive search for relevant articles was performed. However, it should be stressed that there probably exist relevant articles which did not come to the author's attention.

Studies of intergroup relations, prejudice, or choice and rejection behavior in children were included. In relation to this abundance of terminology, Westie (1964: 591) has noted that, "often the terms 'preference' or 'attitude' are used and it is rarely made clear whether those terms are to be equated with prejudice or are related to them in some unspecified manner."

A few studies (Goodman, 1952; Radke et al., 1950; Hraba and Grant, 1970) used both methods. This was handled by treating each method and result as a separate research effort.

If there existed race differences in terms of the result, the study was always categorized according to the choice and/or rejection patterns of the black children.

[5]Some individuals feel that the use of chi-square in instances such as this is inappropriate, due to a serious bias in the available data resulting from the unknown criteria utilized in the selection of articles for publication. The position advocated here, however, is consistent with that of Winch and Campbell (1969: 140) who argue that significance tests are legitimate in circumstances when the researcher is confronted with the question as to whether the covariation in the data is so slight as to be haphazard or so great as to be systematic. ". . . although the test of significance is irrelevant to the interpretation of the cause of a difference, still it does provide a relevant and useful way of assessing the relative likelihood that a real difference exists. . ."

While the table includes some unpublished studies, the probabilities remain substantially unchanged whether or not the unpublished studies were included in the statistical calculations.

Since the expected frequency in each cell was less than five, a .5 correction for continuity was made.

[6]Missing data were handled by deleting a case from the computation of a given coefficient when either one of the variables involved in that coefficient was missing; however, that case was included in the computation of all other coefficients for which there was complete information for that case. When examining correlation matrices, it is generally assumed that all correlation

coefficients are derived from the same cases. In the present research, however, there are potential problems in eliminating any case which is not totally complete. Absenteeism in the Midwest City Public School System was over 35%, thus resulting in a great deal of missing data. Out of a total of 398 cases, the number of cases having complete data was only 155; thus the N was drastically reduced. We must then ask ourselves in what possible ways these 155 complete cases differ systematically from the other 243. Three notions immediately come to mind. (1) These 155 children, being absent less often, are probably healthier on the whole, reflecting unknown systematic differences, i. e., what factors influence good health? (2) The schools where research was conducted had an extremely high turnover rate, in excess of 25%. Thus, these 155 cases are atypical in that they are not representative of the highly transient residents of that area. (3) Since any questionnaire which was completed incorrectly was automatically discarded, these 155 cases are atypical in that these children correctly filled out their answer sheets, thus reflecting anything from better perception of directions to higher reading scores.

Due to these potential problems, the correlation matrices were compiled using two methods for handling missing data: (1) deleting a case from the entire matric if any data were missing; and, (2) deleting a case only from that cell where data were missing. The two sets of tables proved to be virtually identical. Given the above outlined problems with the first method of data deletion, only the latter set of matrices will be presented, analyzed and discussed.

[7]This question was examined from an historical viewpoint in the first section of this paper (see Table 1). Although we know that the correlations between the two methodologies are low, we do not know whether reality-based and projectively-based methodologies yield systematic differences in results. It is expected that independent variables such as race, gender, and racial composition of classroom will generate complex systematic differences between the methods. Thus this research question will be explored in great detail in upcoming papers.

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